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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,440	09/16/2003	Hiroichi Ukei	Q77488	9838
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EXAMINER				
DESAL, ANISH P				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/662,440

**Applicant(s)**

UKEI ET AL.

**Examiner**

ANISH DESAI

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 10/16/07 after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/16/07 has been entered.
2. Claims 1, 2, and 5-9 are pending. Claims 3 and 4 are cancelled.
3. All of the previously made 35 USC Section 112-first paragraph objection to specification and rejection to claims are withdrawn. However, upon further consideration a new 35 USC Section 112-first paragraph objection to the specification and rejection of claims are made.
4. The art rejections of Ishikawa et al. (US 5,212,011) are withdrawn because Ishikawa does not teach or suggest "a filler in the amount of not more than 5 parts by weight based on 100 parts by weight of the resin composition" as claimed. However, upon further consideration, new 35 USC Section 103(a) rejection is made based on Ludwig (US 3,088,848) in view of Ishikawa et al. (US 5,212,011) and Razmic (US 3,090,770).

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 2, and 5-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. These claims are

rejected because they are based on a non enabling disclosure. The specification is non-enabling for the following reasons. It is noted that the specification recites "Incidentally, as the high-density polyethylene are preferable ones having a density of from  $0.940 \text{ g/cm}^3$  to  $0.970 \text{ g/cm}^3$ , and are especially preferable ones having a density of from  $0.950 \text{ g/cm}^3$  to  $0.965 \text{ g/cm}^3$ . On the other had, as the low-density polyethylene are preferably ones having a density of from  $0.880 \text{ g/cm}^3$  to  $0.930 \text{ g/cm}^3$ , and are especially preferable ones having a density of from  $0.910 \text{ g/cm}^3$  to  $0.929 \text{ g/cm}^3$ ." (See 0039 of the PG PUB of the presently claimed invention).

Example 2 of Table 1 of the Applicant's invention discloses blend of 70% LDPE1 (density  $0.919 \text{ g/cm}^3$ ) and 30% HDPE1 ( $0.964 \text{ g/cm}^3$ ) with no filler added to the blend. The densities of LDPE and HDPE in the example 2 is within the range as that of disclosed by Applicant (0039 of the PG PUB of the presently claimed invention). The adhesive tape of this example is completely satisfactory in terms of properties of maximum stress at elongation, stress at break, and elongation at break (see Table 3). However, Comparative Examples 1, 3, and 5, all use same weight% of LDPE and HDPE as that of Example 2. They also the density of LDPE and HDPE used in the aforementioned Comparative Examples are within the range that is disclosed by Applicant (see paragraph 0039 of the PG PUB of the presently claimed invention). Further, a filler is not added in the blend disclosed in the aforementioned comparative examples. But as seen from Table 4, the results (e.g. maximum stress at break) of the aforementioned comparative examples are inadequate. For example, the maximum stress at break for comparative example 2 is smaller than the stress at break (see Table 4). Therefore, there is contradiction in the specification. Given Applicant's teachings in the specification for suitable densities of the polymers, Comparative Examples 1, 3, and 5 should have acceptable result. That they do not indicates that undue experimentation is necessary to determine what the invention

actually is, what parameters are unaccounted for that result in the inadequacies of the comparative examples and what features are actually responsible for the success of certain embodiments of the invention. The inventor's lack of guidance in this issue contributes to the need for undue experimentation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig (US 3,088,848) in view of Ishikawa et al. (US 5,212,011) and Razmic (US 3,090,770).

Ludwig discloses a pressure-sensitive adhesive (PSA) tape comprising a film (supporting substrate) comprising a blend of high density and low density polyethylenes (see Figure). Further, Ludwig discloses that "It is to be understood that various embodiments can be made in the invention described herein. Thus, materials normally added to conventional polyethylene, as known in the art, can be compounded with the blends of high and low density polyethylenes to obtain desired modification attributable to these materials. **If desired, filler materials and dyes or pigments may be incorporated as desired.**" (column 6 lines 47-60). Further, Ludwig discloses that "Low density polyethylenes generally exhibits a melting point...has an average density of about 0.92...carbon chain." (column 1 lines 42-45). It is noted that Ludwig discloses blend with varying amounts of HDPE (note balance being LDPE) (see Table 1, column 2 lines 35-40, column 4 lines 50-54), which reads on Applicant's weight% ratio of HDPE to LDPE in

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the range of 10/90 to 90/10. Further, as to the density of HDPE, Ludwig discloses that "The melting point of high density polyethylene...It had an average density greater than 0.92, the density ordinarily ranging from about 0.95 to about 0.98...state." (column 1 lines 46-50 and claim 1).

Ludwig is silent with respect to teaching the supporting substrate having an uneven portion on one side, the maximum stress at elongation of not more than 50% of the PSA tape is larger than the stress at break, wherein the elongation at break of the PSA tape is from 100 to 300%, the amount of filler is not more than 5 parts by weight based on 100 parts by weight of the resin composition, and the maximum stress at an elongation equal to or less than 50% is at least 11 N/10mm. However, Ishikawa discloses an adhesive tape which is low in cost and the properties of which such as unwindability, adhesiveness, trimmed clearance, printability, transparency and longitudinal tearing strength are improved without spoiling lateral hand cutting characteristics (abstract). The adhesive tape of Ishikawa is formed of a polyolefin resin base film and an uneven surface is formed on the other side thereof (abstract). It is noted that the film of Ludwig is formed of polyolefin based resins. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the uneven surface as taught by Ishikawa in the invention of Ludwig, motivated by the desire to obtain an adhesive tape having improved properties of adhesiveness and printability.

Ludwig as modified by Ishikawa is silent with respect to teaching the amount of filler as presently claimed. However, Razmic discloses blended polyethylene compositions of improved clarity (title) and polyethylene products such as film and ribbon for packaging." (column 6 lines 25-30). According to Razmic "Surprisingly, it has been now discovered that blending a major portion of a parent polymer consisting essentially of polyethylene which has not been subjected

to a crosslinking operation with a minor amount of a crosslinked polyethylene additive [filler] at a temperature above the melting point of the parent polymer will yield polyethylene having greatly improved clarity which can be subjected to subsequent processing and shaping operations (column 1 line 71 to column 2 lines 1-7). Further Razmic discloses that "A preferred amount of crosslinked polyethylene additive which is blended in the range 0.5 to 5% by weight of the parent polymer." (column 2 lines 43-45). It is noted that the primary reference of Ludwig's film is formed of HDPE and LDPE (i.e. polyethylenes) and Ludwig desires use of a filler (column 6 lines 48-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add crosslinked polyethylene of Razmic in the film of Ludwig in the amount taught by Razmic, motivated by the desire to improve the clarity of the film.

Given that Ludwig as modified by Ishikawa and Razmic discloses claimed invention except for the properties of the maximum stress at elongation of not more than 50% of the PSA tape is larger than the stress at break, wherein the elongation at break of the PSA tape is from 100 to 300%, and the maximum stress at an elongation equal to or less than 50% is at least 11 N/10mm. It is reasonable to presume that said properties are present in the PSA tapes of Ludwig as modified by Ishikawa and Razmic, because the PSA tapes of Ludwig as modified by Ishikawa and Razmic, and that of Applicant comprise supporting substrate having a PSA layer formed on one side of the substrate, the supporting substrate having an uneven portion on one side. Further, the PSA tapes of Ludwig as modified by Ishikawa and Razmic, and that of Applicant comprise substrate formed of HDPE and LDPE wherein LDPE has density equal to or less than  $0.919 \text{ g/cm}^3$  and the ratio of HDPE to LDPE is as claimed in claim 1; wherein the filler in the amount of not more than 5 parts by weight based on 100 parts by weight of the resin composition is added to the substrate. Therefore, the PSA tapes of Ludwig as modified by Ishikawa and

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Razmic, and that of Applicant are structurally and compositionally equivalent. Hence, the presently claimed properties would have been present. The burden is shifted to Applicant to prove it otherwise (see *In re Fitzgerald*, 205 USPQ 594).

***Response to Arguments***

7. Applicant's arguments received on 10/16/07 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794

APD

/Terrel Morris/

Terrel Morris

Supervisory Patent Examiner

Group Art Unit 1794